

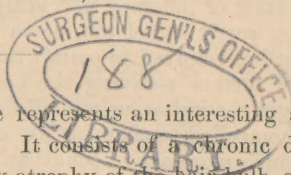
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DUP.
CASE OF AN UNDESCRIBED FORM OF ATROPHY
OF THE HAIR OF THE BEARD.¹

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THE case that I am about to describe represents an interesting and, I think, new form of disease of the hair. It consists of a chronic disease of the hair of the beard, characterized by atrophy of the hair-bulb, and by splitting of the hair-substance, producing irritation of the follicles, and giving rise to disfigurement.

The subject is a physician, thirty-three years of age, of average height and proportions, with dark complexion and blackish hair. I first saw him one year ago. He stated that he was suffering with a singular disease of the beard, which gave him great mental worry and considerable discomfort. He had had it for some years, and although it had been vigorously treated, no benefit had resulted. He added that neither he nor the several physicians whom he had consulted had been able to arrive at a conclusion regarding the nature of the disease, but that by some it had been considered to be parasitic.

I found him of a highly nervous temperament, and exceedingly disturbed in mind about his condition. His general health was below the average. He was dyspeptic, and suffered with an irritable prostate gland. The hair of the scalp was cut quite close, and presented no peculiarities. Upon the upper lip he carried a long, narrow, brownish moustache, which, except that it was noticeably narrow, and had an irregular, broken upper border, appeared to be healthy. The rest of the face possessed about a week's growth of dark-brown, manifestly more or less diseased hair, which was nowhere abundant, and moreover inclined to grow in patches. The hair upon other regions of the body was normal. He gave the following account of the affection: It first manifested itself about seven years ago, upon either side of the chin, in the form of small irregular areas about the size of a dime. He was not at that time in the habit of shaving, but wore a full beard, which was thick, luxuriant, and perfect as regards the hair. He noticed that the hairs of the patches referred to became dry, brittle, and split up, and that they broke off here and there, leaving ragged extremities. Shaving of the whole face was now instituted, and kept up for a period, but it was noted that the disease still continued, and that it was very gradually encroaching on new territory. Three years ago it made

¹ Read before the American Dermatological Association, at its first annual meeting, at Niagara Falls, Sept. 1877.

its appearance around the upper border of the moustache on either side, where it has persisted, creeping downwards very slowly to its present line.

He states that he has observed that the effect of shaving is, upon the whole, beneficial. If daily shaving be practised, the skin and the hairs in time assume a healthier appearance. As soon, however, as the hairs are permitted to grow, the abnormal condition reappears. More or less irritation of the skin and slight scaldiness of the affected regions are at all times present, but in a marked degree only after the beard has existed for some days. Occasionally the disturbance of the follicles is so great that small follicular papules and pustules form here and there. If the beard be allowed to grow for a fortnight, the hairs assume a stiff, brittle, split-up condition, the free ends showing brush-like extremities, while the skin becomes hyperæmic or inflamed and scaly. Sooner or later the hairs loosen, and may be easily pulled out, or in time drop out. Repeatedly of late the patient has resolved to permit the beard to grow indefinitely, for the purpose of further studying the course of the disease; but at the end of a fortnight the irritation and disfigurement have been so great that he has been compelled to abandon his determination. The disease, he states, is in a much more active condition now than it was a year or two since.

The subjective symptoms he describes as being very annoying, consisting of more or less itching and general irritation of the affected parts. They are decidedly worse when the beard is growing.

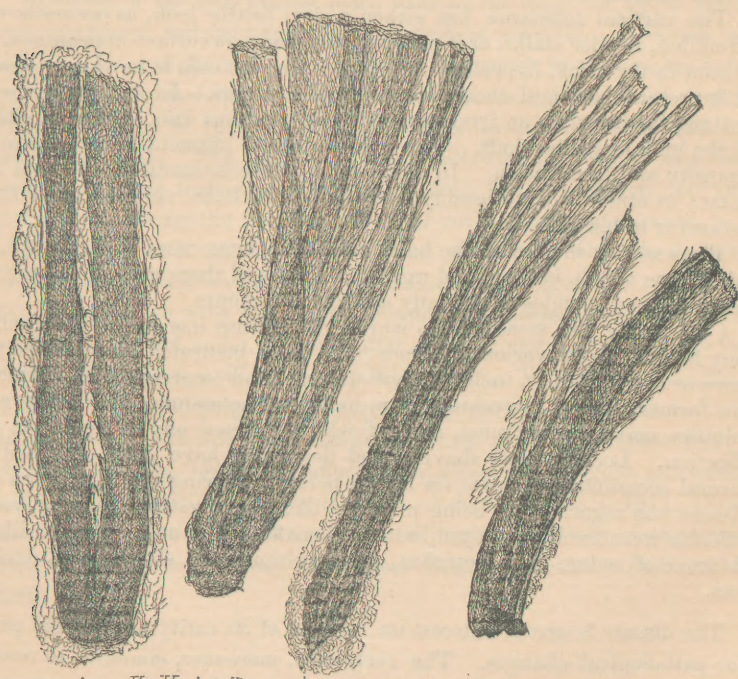
The present appearance of the disease may be described as follows: It will be remembered, as stated, that a week's growth of hair exists upon the chin, and that the moustache is of full length. The regions invaded are two indistinctly defined, irregularly ovalish areas, about as large as olives, on either side of the chin between the median line and the angle of the lower jaw. They come down over the chin quite symmetrically, almost joining at the median line. The upper lip is attacked in the form of two irregularly shaped, elongate patches, extending on either side from the lower border of the nares to the angles of the mouth; in other words, completely around the upper border of the moustache, which is in part destroyed. The remainder of the moustache is normal. The side whiskers as well as the hair of the neck are likewise unaffected. Around the outer border of the moustache the hairs are entirely wanting, the diseased areas having been recently depilated. The skin is slightly reddened and scaly, and has the appearance of being the seat of seborrhœa. As already stated, the moustache is unusually narrow and presents a broken, irregular upper outline. The patches upon the sides of the chin have a hyperæmic, scaly surface, and are partially bald, the hairs that remain being plainly diseased. Here and there are minute follicular papules and pustules. The free extremities of the hairs are split up into two or more parts, giving the hairs a ragged look. They are of irregular length and calibre; some are uncommonly thick, while others are remarkably thin and atrophied. One hair only is noted to proceed from a follicle. There is no swelling of the skin, but the surface is hyperæmic and slightly scaly, and, as upon the upper lip, resembles seborrhœa. The condition also bears some likeness to *tinea circinata* of this region, but not to *tinea sycosis*, for, as stated, there is no swelling of the tissues.

The hairs when seized with the forceps are found in some instances to be firmly seated in their follicles, and in other cases to be so loose that they may be readily extracted. Depilation is in no instance painful. Even the hairs which are securely lodged may be pulled out without causing the

least pain. This has always been the case, and has been noted by the patient as being a singular feature of the disease. With some hairs depilation is difficult, the hairs breaking off leaving the roots within the follicles.

To the naked eye the extracted hairs are seen to vary greatly in appearance. They are from one to several lines in length. Some have a uniform diameter, several times greater than normal, while others throughout their length are unusually slender. They also vary in form, some being straight, others crooked. The bulbs are in almost all instances smaller than normal, and have a markedly contracted look. Not unfrequently the diameter of the bulb and root is considerably less than that of the shaft. The shafts are either diminutive, in which case they are generally free of root-sheath; or, they are of large calibre and surrounded with adherent root-sheath.

The majority of the hairs show splitting into two, three, or more parts throughout their entire length. The extent of the splitting varies; in some hairs the substance is split up into a number of parts, or stalks, widely separated, while in other specimens the stalks hold together, so that the form of the hair is still preserved, although larger than normal. Many of the hairs look as though they might have been cleft with a delicate knife. In other cases the disintegration is in a less advanced stage, the hairs showing merely indications of splitting.



ARTHUR VAN HARLINGEN DEL.

Specimens of hair showing the several varieties of disease. 20 diameters.

Under the microscope the hairs exhibit still greater diversity of structure, as may be seen in the accompanying drawing. They are, in the first place, notable for their irregularity of form, scarcely two of them being alike. Atrophy of the bulbs and fission of the hair substance are the con-

spicuous features. In the majority of the specimens the bulbs are distinctly shrunken and atrophied, appearing as small contracted points or knobs. The hairs, as a rule, begin to fissure within the bulb, the separation of the parts taking place either at the bulb or at a variable distance beyond it. The hair structure is noted to divide very irregularly into two, three, four or more parts, which either adhere throughout the length of the hair, or diverge at once, and, in some cases, split again into other stalks. The splitting and branching may, I think, be quite appropriately compared to this process as it takes place in many elm trees, where the limbs are often thrown off at no great distance from the roots. No uniformity is observed in the fission; some stalks spring directly from the bulb, others are formed by the division of a stalk. They vary as to number and size. The majority of hairs show from three to five stalks. Some are short and thick; others are long and slender. As a rule, they incline to diverge widely as the free extremity is approached, giving the hair somewhat the form and appearance of a feather brush. They either retain their original calibre throughout their length, or they gradually enlarge towards their free ends, in some instances to fully double the size they possess at their point of departure from the main structure. This is a striking and, at the same time, a curious feature of the disease, and is well shown in one of the drawings.

The cortical substance has either a dry, brittle look, as occurs in the atrophied, slender stalks, or it possesses a spongy, luxuriant appearance, as is seen in the thick, hypertrophied parts. The medulla is nowhere normal. It is present here and there, but in broken tracts. In many specimens nothing further than an irregular streak of pigment can be found, either at the bulb or in the shaft. The distribution of pigment is variable as to quantity and localization. In some hairs it is concentrated, as about the bulbs; in others it is noticeably wanting. The hairs vary in colour from yellowish to blackish.

The exterior surface of the hairs varies; in some cases it is smooth, in others dry, rough, broken, and ragged. Here and there are noticed jagged processes and spicules of partially detached filaments.

Concerning the treatment to which the disease has been subjected, it may be stated that various methods have been instituted and carried out more or less faithfully, including both internal and local remedies. Among the former, arsenic, strychnia, iron, iodide of potassium, and Donovan's solution may be mentioned, none of which exerted any influence on the affection. Locally, close shaving and depilation have been practised on several occasions, but never for a long period. During the time when the disease was regarded as being probably due to a vegetable parasite, parasiticides were freely employed, without benefit. The only remedies likely to prove of value, in my opinion, are long-continued shaving and depilation.

The disease is one of interest on account of its rarity and for the peculiar pathological changes. The symptoms, moreover, combine to render it both an annoying and a disfiguring affection. Regarding its pathology we learn from microscopic study that the morbid process takes its origin at the base of the bulb, and consequently manifests itself as soon as the hair commences to grow. The changes take place within the follicle. With the development of the hair occurs atrophy of the bulbs, followed by

fission, and subsequently irregular growth of the hair-substance. The increase in the bulk of the hair, caused by the separation of its parts, renders it too large for the follicle, which becomes distended and more or less inflamed. The clinical symptoms are by this explanation satisfactorily accounted for. The most striking feature of the disease is found in the fact that while the bulbs are in a state of marked atrophy, the root and shaft show apparent hypertrophy, and in some cases this in a remarkable degree. The phenomenon admits of no explanation.

The theory of the parasitic nature of the affection need be mentioned merely to be disposed of as being entirely out of the question. No sign of any vegetable organism was found within the hair or in any of the epithelial cells of the epidermis or follicle. The microscopic examinations were conducted with much care, a large number of hairs, together with epithelial matter taken from the follicles and epidermis, having been viewed under both low and high powers. The specimens were obtained and examined on several occasions, and at intervals of months, with invariably the same result.

Splitting of the hair taking place without the follicle is by no means a rare condition, and may exist in all degrees of severity. It occurs in the long fine hairs of the scalp, and also less frequently in the shorter hairs of the beard. A case of simple splitting of the hair of the beard occurring in a gentleman of thirty with reddish hair, is at the present time under my observation. The hairs, upon being allowed to grow to any length, become dry and brittle, and split up at their free extremities into two or more parts, giving the beard a somewhat curly, bushy appearance.

In conclusion, it may be remarked that the disease which is the subject of this communication must be regarded as one of atrophy of the hair, and may be grouped with that singular and rare disease which was first described by Beigel under the name of "swelling and bursting of the hairs" (*Sitzb. d. k. Akad. d. W.* bd. xvii. p. 612, 1855). Kaposi, who has also met with the disease of Beigel, just referred to, proposes for it the name "trichorexis nodosa" (Hebra and Kaposi, *Diseases of the Skin*, New Syd. Soc. Trans., vol. iii. p. 244). The affection described by Devergie, and called by him "tricoptilosis" (*Annales de Derm. et de Syph.* No. i. 1871, 1872), is doubtless the same disease as the "swelling and bursting of the hairs" of Beigel. It differs in many particulars from the disease under consideration.

